

ABSTRACT

The present invention provides a method of manufacturing a bismuth based oxide superconducting wire, comprising steps of preparing a raw material powder, and subjecting the raw material powder to plastic working and heat treatment; wherein the raw material powder contains the superconducting phases containing Bi, Pb, Sr, Ca, Cu, and O in a composition ratio of approximately 2:2:1:2 (Bi+Pb):Sr:Ca:Cu, and the non-superconducting phases containing Pb; wherein the composition ratio (Bi+Pb):Sr:Ca:Cu of the raw material powder is approximately 2:2:2:3; and wherein the ratio of the non-superconducting phases to the superconducting phases is 5 wt% or less; or wherein the raw material powder contains orthorhombic superconducting phases containing Bi, Pb, Sr, Ca, Cu, and O in a composition ratio of approximately 2:2:1:2 (Bi+Pb):Sr:Ca:Cu; and wherein the composition ratio (Bi+Pb):Sr:Ca:Cu of the raw material powder is approximately 2:2:2:3.